

401  
 Tata Steel IJmuiden BV  
 Houtekebaarsstraat 1  
 1951 JE Veisen Noord  
 Postbus 10000  
 1970 CA IJmuiden, The Netherlands  
 Telephone: +31-452110  
 Company Trade Register: 54603531  
 E-mail : info\_testing@tatasteel.com

402 Reference  
 450000678  
 11001475  
 2016084720:00

403  
 00030  
 Hot rolled pickled, Coil, S355MC, YMPRESS HG S:01-2010.  
 Mill edges.  
 Tolerance: EN 10051 : 2010 (E) (Width tolerance +20/-0 mm) Dev. Tol. (Thickness tolerance +0.15/-0.15 mm).

404 Test report 2.2, EN 10204.  
 EN: 1002:2003:100, A15

405  
 TATA STEEL

406 Customer/Consigee  
 MAANTALI STEEL SERVICE  
 RAUTAKATU 5  
 21110 MAANTALI  
 FINLAND  
 11001475000034858

407  
 Purchase Order: 450000678  
 Vendor Batch: 822194

408  
 Purchase Order: 450000678  
 Vendor Batch: 822191

409  
 Purchase Order: 450000678  
 Vendor Batch: 822196

408 Order nr.: 54491 C  
 ALL Dispatch note: 73518  
 ALL Transport: PLYGA  
 11001475000034862  
 11001475000034880

409 A10-A11 Dimensions 1500 mm X 5 mm C10-C13

PROD. IDENT	MASS Kg	NR	CAST NR.	COL C01/C10	C02	B05 Temp °C	C05 R <sub>0H</sub> MPa	C11 R <sub>0L</sub> MPa	C11 R <sub>0L</sub> MPa	C11 R <sub>0P</sub> MPa	C12 R <sub>0M</sub> MPa	C13 A %	C13 A %	C16 R <sub>0H</sub> /R <sub>0M</sub> %	C17 f-value	C18 n-value	HARDNESS	C10, C10, C45	C01/C10	B05	C41 mm	C40, C40, C45	C03 Temp °C	C42 Ind.	C42 Ind.	C42 Ind.	C43 mean	C45				
822192	10518	1	W0555	32	1L P	+ 20	401				476	31.7		84																		
822191	10528	1	"																													
822193	10000	1	"																													
822196	10450	1	W0603	32	1L P	+ 20	402				474	30.8		85																		
822194	10480	1	"																													
TOTAL																																

410

411 CHEMICAL COMPOSITION in %

C07	C08	C09	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33	C34	C35	C36	C37	C38	C39	
CAST NR.	PROD. IDENT	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Nb	V	N	B	C-eq	Al-ZO	Sn	Ti	C-eq1													
W0555	W0603	.069	0.505	.009	.006	0.011	0.036	.017	0.025	0.021	.004	.026	.003	.0026	.0000	0.034	.004	.001	.162														
		.063	0.487	.014	.006	0.015	0.064	.015	0.027	0.019	.006	.025	.003	.0027	.0000	0.042	.005	.002	.154														

412

413 1: J/cm<sup>2</sup>  
 2: J/cm<sup>2</sup>  
 3: Later. exp. (mm)  
 4: Contraction (%)  
 5: Shear area (%)

414  
 1: 1st Top  
 2: 1st Edge  
 3: Middle  
 4: 2nd Middle  
 5: 2nd Bottom  
 C-eq1: C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

415  
 1: 1st Top  
 2: 1st Edge  
 3: Middle  
 4: 2nd Middle  
 5: 2nd Bottom  
 C-eq1: C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15

416  
 STEELMAKING PROCESS: BO

417  
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418  
 Stamp of the expert:

419  
 Purchase Order: 450000678  
 Vendor Batch: 822192

420  
 We certify that the delivery complies with the order prescriptions.

421  
 SIMON BRAAH  
 MANAGER TESTING  
 IJMUIDEN, 10 AUGUSTUS 2016

**Tata Steel IJmuiden BV**  
 Nieuweboezestraat 1  
 Postbus 10000  
 1970 CA IJmuiden, The Netherlands  
 Telephone: 0251-492110  
 Company Trade Register: 34040331  
 E-mail: info.testlab@tatasteel.com

450000678  
 11001475  
 2016084720-00

00030  
 Test report 2.2, EN 10204.

Hot rolled pickled, Coil, S355MC, YMPRESS HG S:01-2010.  
 Mill edges.  
 Tolerance EN 10051 : 2010 (E) (Width tolerance +20/-0 mm) Dev.Tol. (Thickness tolerance +0.15/-0.15 mm).

EN 10025-2:2004, S355MC, YMPRESS HG S:01-2010

PLVCA

11001475000034861

**TATA STEEL**

**NAANTALI STEEL SERVICE**  
 RAUTAKATU 5  
 21110 NAANTALI  
 FINLAND  
 11001475000034858

Purchase Order: 4500000678  
 Vendor Batch: 822194

Purchase Order: 4500000678  
 Vendor Batch: 822191

Purchase Order: 4500000678  
 Vendor Batch: 822191

Purchase Order: 4500000678  
 Vendor Batch: 822196

Order nr.: 54491 C  
 Dispatch note: 73518

Transport: PLYCA

11001475000034862

11001475000034860

909: A10: A11 Dimensions		1500 mm X 5 mm		C10-C29		TENSILE TEST										HARDNESS		IMPACT TEST AND OTHER TESTS											
PROD. IDENT	MASS Kg	NR	CAST NR.	COL. CODE	C10/C10	B05	Temp °C	R <sub>H</sub> MPa	R <sub>L</sub> MPa	R <sub>p</sub> MPa	R <sub>m</sub> MPa	A %	A %	R <sub>H</sub> /R <sub>m</sub> %	F-value	n-value	C02	C01/C10	B05	mm	Temp °C	Ind.	Ind.	Ind.	Ind.	Ind.	ASTM E-112		
822192	10518	1	W0555		32 LL P		+ 20	401			478	31.7																	
822191	10528	1	"																										
822193	10000	1	"																										
822196	10450	1	W0603		32 LL P		+ 20	402			474	30.8																	
822194	10480	1	"																										
TOTAL																													

CHEMICAL COMPOSITION in %

207	807	C01	C02	C03	C04	C05	C06	C07	C08	C09	C10	C11	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22	C23	C24	C25	C26	C27	C28	C29						
CAST NR.	PROD. IDENT	C	Mn	P	S	Si	Al	Cu	Cr	Ni	Mo	Nb	V	N	B	C-eq	Al-Zn	Sn	Ti	C-eq1																
W0555		.069	0.505	.009	.006	0.011	0.036	.017	0.025	0.021	.004	.026	.003	.0028	.0000	0.034	.004	.001	.162																	
W0603		.063	0.467	.014	.006	0.015	0.044	.015	0.027	0.019	.006	.025	.003	.0027	.0000	0.042	.005	.002	.154																	

Stamp of the expert: \_\_\_\_\_

Purchase Order: 4500000678  
 Vendor Batch: 822192

We certify that the delivery complies with the order prescriptions.

DIRK971E DIRK971S

Purchase Order: 4500000678  
 Vendor Batch: 822192

Stamp of the expert: \_\_\_\_\_

Purchase Order: 4500000678  
 Vendor Batch: 822192

SIMON BRAAM  
 MANAGER TESTING

IJMUIDEN, 10 AUGUSTUS 2016

Tata Steel IJmuiden BV  
 Test House, IJmuiden

STEELMAKING PROCESS: BO Page 1 of 1